

Claims

1. A method of treating allergy symptoms comprising administering a therapeutic amount of an antihistamine drug condensation aerosol, having an MMAD less than 3 μm and less than 5% antihistamine drug degradation products, to a patient by inhalation, upon activation by the patient of the formation of, and delivery of, the condensation aerosol.
2. The method of claim 1, wherein said condensation aerosol is formed by
 - a. volatilizing an antihistamine drug under conditions effective to produce a heated vapor of the antihistamine drug; and
 - b. condensing the heated vapor of antihistamine drug to form condensation aerosol particles.
3. The method according to claim 2, wherein said administration results in a peak plasma concentration of said antihistamine drug in less than 0.1 hours.
4. The method of claim 2, wherein the antihistamine drug is selected from the group consisting of azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine.
5. The method according to claim 3, wherein the administered aerosol is formed at a rate greater than 0.5 mg/second.
6. The method according to claim 1, wherein at least 50% by weight of the condensation aerosol is amorphous in form.
7. A method of treating allergy symptoms comprising administering a therapeutic amount of an azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine condensation aerosol, having an MMAD less than 3 μm and less than 5% azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine,

hydroxyzine, or promethazine degradation products, to a patient by inhalation, upon activation by the patient of the formation of, and delivery of, the condensation aerosol.

8. The method of claim 7, wherein said condensation aerosol is formed by
 - a. volatilizing azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine under conditions effective to produce a heated vapor of azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine; and
 - b. condensing the heated vapor of azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine to form condensation aerosol particles.
9. The method according to claim 7, wherein said administration results in a peak plasma concentration of azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine in less than 0.1 hours.
10. The method according to claim 7, wherein at least 50% by weight of the condensation aerosol is amorphous in form.
11. The method according to claim 7, wherein said azatadine condensation aerosol has an inhalable aerosol mass density of between 0.2 mg/L and 2.5 mg/L when delivered.
12. The method according to claim 7, wherein said brompheniramine condensation aerosol has an inhalable aerosol mass density of between 0.8 mg/L and 10 mg/L when delivered.
13. The method according to claim 7, wherein said carbinoxamine condensation aerosol has an inhalable aerosol mass density of between 0.8 mg/L and 10 mg/L when delivered.

14. The method according to claim 7, wherein said chlorpheniramine condensation aerosol has an inhalable aerosol mass density of between 0.5 mg/L and 5 mg/L when delivered.
15. The method according to claim 7, wherein said clemastine condensation aerosol has an inhalable aerosol mass density of between 0.25 mg/L and 6 mg/L when delivered.
16. The method according to claim 7, wherein said cyproheptadine condensation aerosol has an inhalable aerosol mass density of between 0.8 mg/L and 10 mg/L when delivered.
17. The method according to claim 7, wherein said loratadine condensation aerosol has an inhalable aerosol mass density of between 2 mg/L and 25 mg/L when delivered.
18. The method according to claim 7, wherein said pyrilamine condensation aerosol has an inhalable aerosol mass density of between 6 mg/L and 70 mg/L when delivered.
19. The method according to claim 7, wherein said hydroxyzine condensation aerosol has an inhalable aerosol mass density of between 2 mg/L and 100 mg/L when delivered.
20. The method according to claim 7, wherein said promethazine condensation aerosol has an inhalable aerosol mass density of between 5 mg/L and 60 mg/L when delivered.
21. A method of administering an antihistamine drug to a patient to achieve a peak plasma drug concentration rapidly, comprising administering to the patient by inhalation an aerosol of an antihistamine drug having less than 5% antihistamine drug degradation products and an MMAD less than 3 microns wherein the peak plasma concentration of the antihistamine drug is achieved in less than 0.1 hours.
22. A method of administering azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine to a patient to achieve a peak plasma drug concentration rapidly, comprising

administering to the patient by inhalation an aerosol of azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine having less than 5% azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine degradation products and an MMAD less than 3 microns wherein the peak plasma drug concentration of azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine is achieved in less than 0.1 hours.

23. A kit for delivering a drug aerosol comprising:

- a) a thin coating of an antihistamine drug composition and
- b) a device for dispensing said thin coating as a condensation aerosol.

24. The kit of claim 23, wherein the antihistamine drug in the composition is selected from the group consisting of azatadine, brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, loratadine, pyrilamine, hydroxyzine, or promethazine.

25. The kit of claim 23, wherein the device for dispensing said coating of an antihistamine drug composition as an aerosol comprises

- (a) a flow through enclosure,
- (b) contained within the enclosure, a metal substrate with a foil-like surface and having a thin coating of an antihistamine drug composition formed on the substrate surface,
- (c) a power source that can be activated to heat the substrate to a temperature effective to volatilize the antihistamine drug composition contained in said coating, and
- (d) inlet and exit portals through which air can be drawn through said device by inhalation,

wherein heating the substrate by activation of the power source is effective to form an antihistamine drug vapor containing less than 5% antihistamine drug degradation products, and drawing air through said chamber is effective to condense the antihistamine drug vapor to form aerosol particles wherein the aerosol has an MMAD of less than 3 microns.

26. The kit according to claim 25, wherein the heat for heating the substrate is generated by an exothermic chemical reaction.
27. The kit according to claim 26, wherein said exothermic chemical reaction is oxidation of combustible materials.
28. The kit according to claim 25, wherein the heat for heating the substrate is generated by passage of current through an electrical resistance element.
29. The kit according to Claim 25, wherein said substrate has a surface area dimensioned to accommodate a therapeutic dose of an antihistamine drug composition in said coating.
30. The kit according to claim 23, wherein a peak plasma concentration of antihistamine drug is obtained in less than 0.1 hours after delivery of the condensation aerosol to the pulmonary system.
31. The kit of claim 23, further including instructions for use.